5.2 27th Street and Highway 2

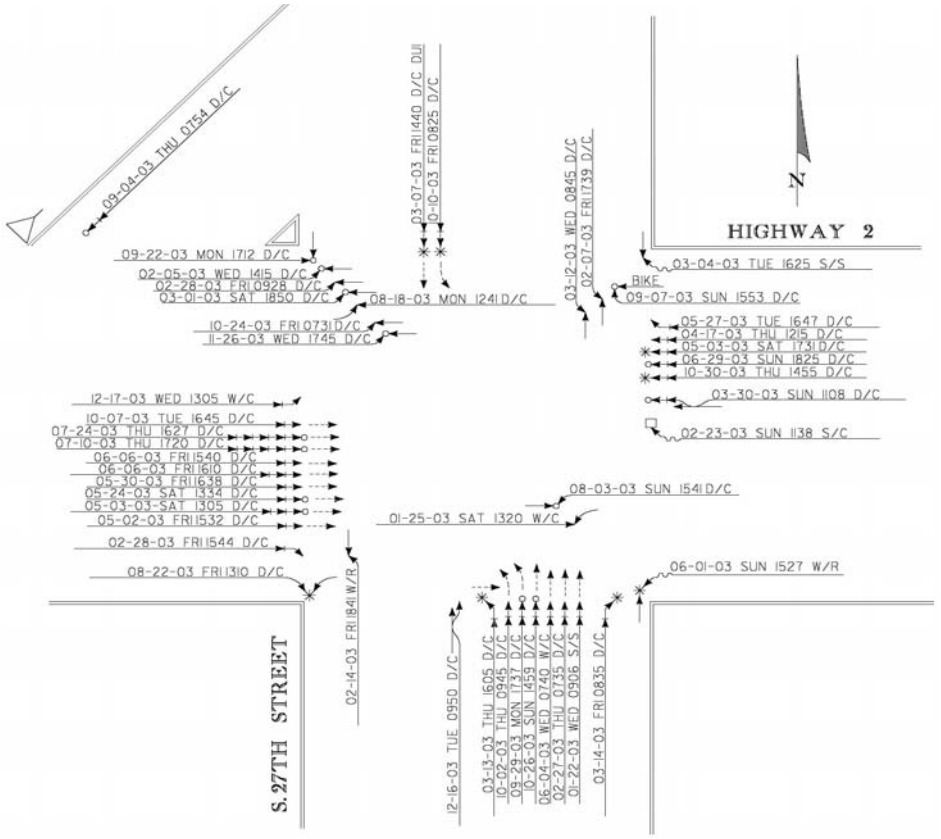
BEFORE

ADT: 53,550 veh/day (2002)

Time Period: 2003

Traffic Control: Actuated Coordinated Signal

Crash Pattern: All Rear Ends
EB Left Turns



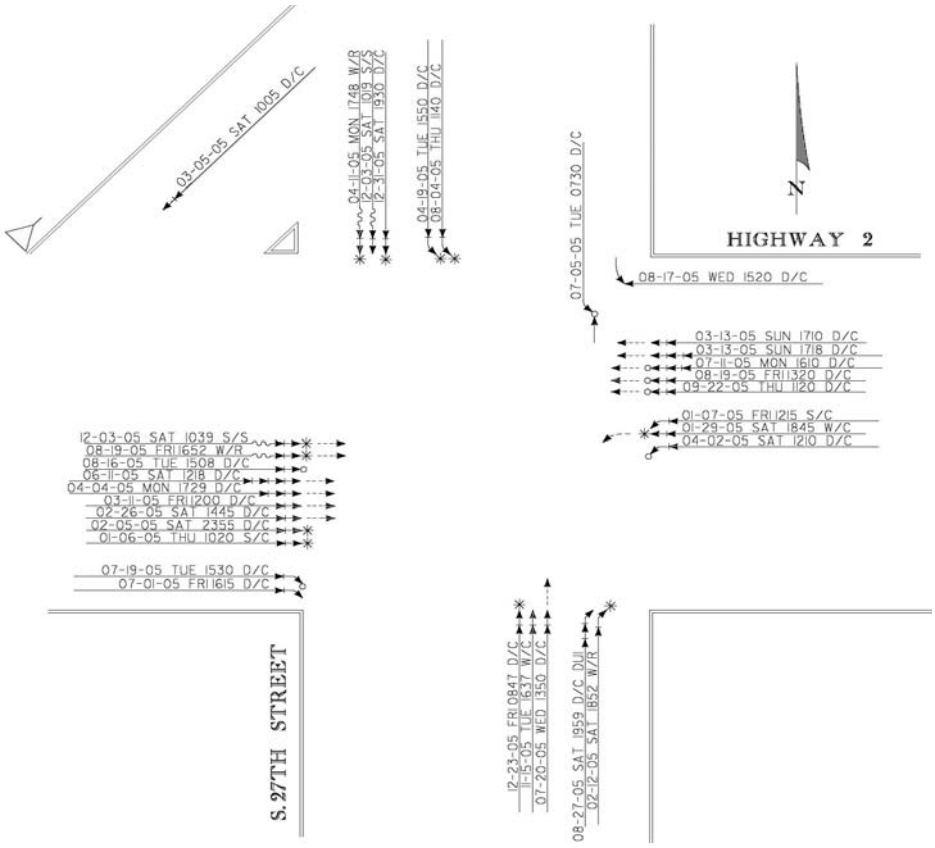
Total Crashes in Before Period: 46

27th Street & Highway 2 - Northbound Approach (Before)

5.2 27th Street and Highway 2

AFTER

Countermeasures:	Constructed NB & SB Left Turn and NB Right Turn Lanes; Rebuilt Traffic Signal; Converted NB, SB, EB, & WB Left Turn Phase to Protected Only	**Time Period:**	2005
Improvement Completion Date:	Summer 2004	**Speed Limits:**	NS Arterial- 35 mph EW Arterial- 45 mph



Total Crashes in After Period: 32

27th Street & 'O' Street - Northbound Approach (After)

5.2 27th Street and Highway 2

COMPARISON

Countermeasures: Constructed NB & SB Left Turn and NB Right Turn Lanes; Rebuilt Traffic Signal; Converted NB, SB, EB, & WB Left Turn Phase to Protected Only

Improvement Completion Date: Summer 2004

	Before	After	Change
Analysis Period	2003	2005	-
Primary Crash Benefit			
Total Number of Correctable Crashes	21	11	-48%
All Other Intersection Crashes	25	21	-16%
Intersection Crash Experience			
Injury + Fatal Crashes	15	7	-53%
Property Damage-Only Crashes	23	14	-39%
Non-Reportable Crashes	8	11	38%
Total Number of Intersection Crashes	*46*	*32*	-30%
Total Intersection Benefit			
Crash Rate	2.35	1.64	-30%
EPDO Rate	8.48	4.45	-48%
EPDO Number*	165.68	86.9	-78.78

Cost of Property Damage Crash:	$	8,200
Total Benefit (12 months):	$	645,996
Equivalent Uniform Annual Benefit (EUAB):	$	829,237

Total Cost of Improvements:

Equivalent Uniform Annual Cost (EUAC):	$	28,565
Initial Cost:	$	327,652

Benefit-Cost Ratio: $\frac{\$\ 829{,}237}{\$\ 28{,}565} = 29.0$

Net Benefit (Present Worth): $ 829,237 - $28,565 = $800,672

**Change Statistically Significant at 95% Confidence Interval*

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